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ILLINOIS

Lake Defiance Self-Guided Interpretive Trail

Moraine Hills State Park

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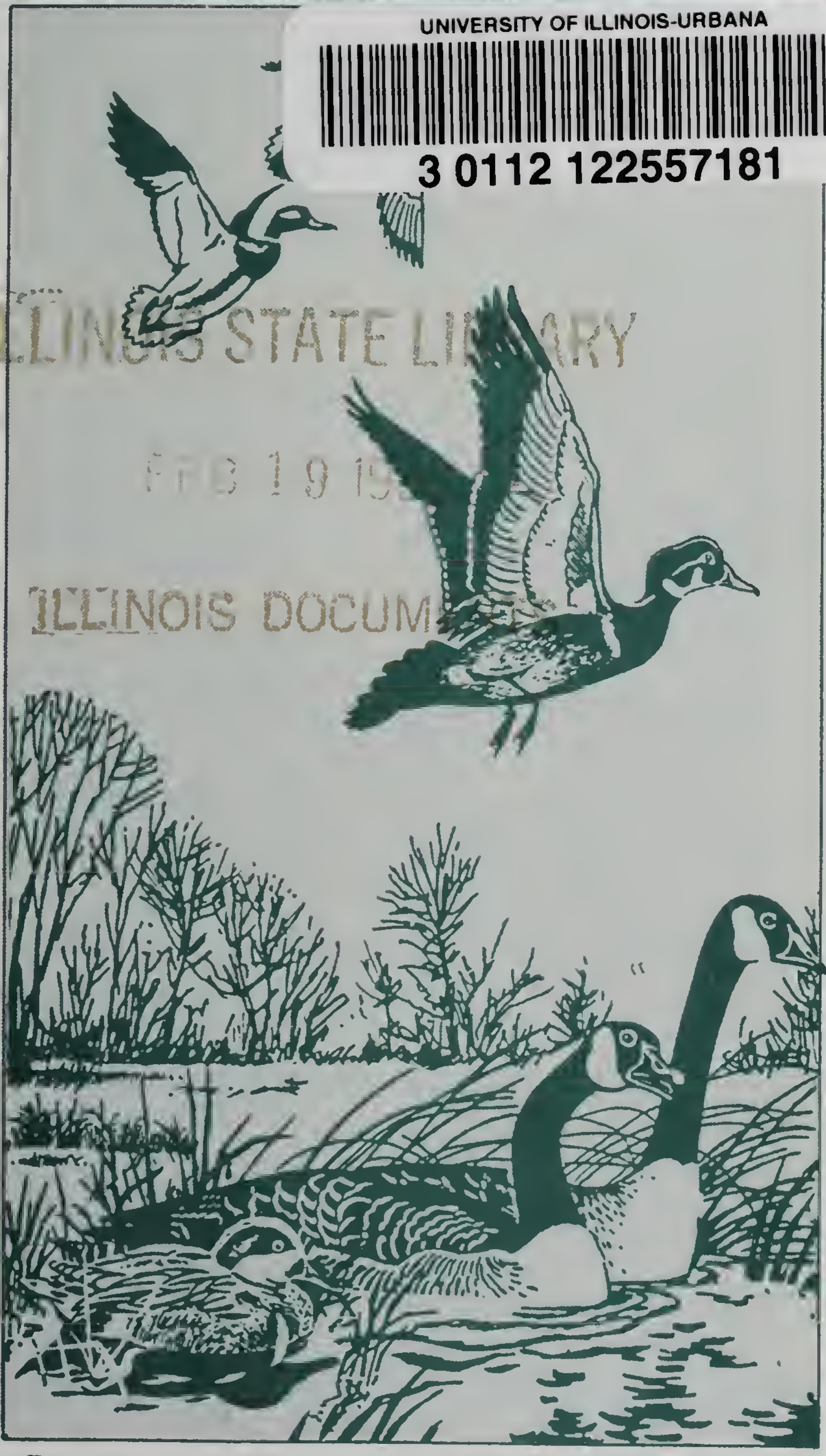

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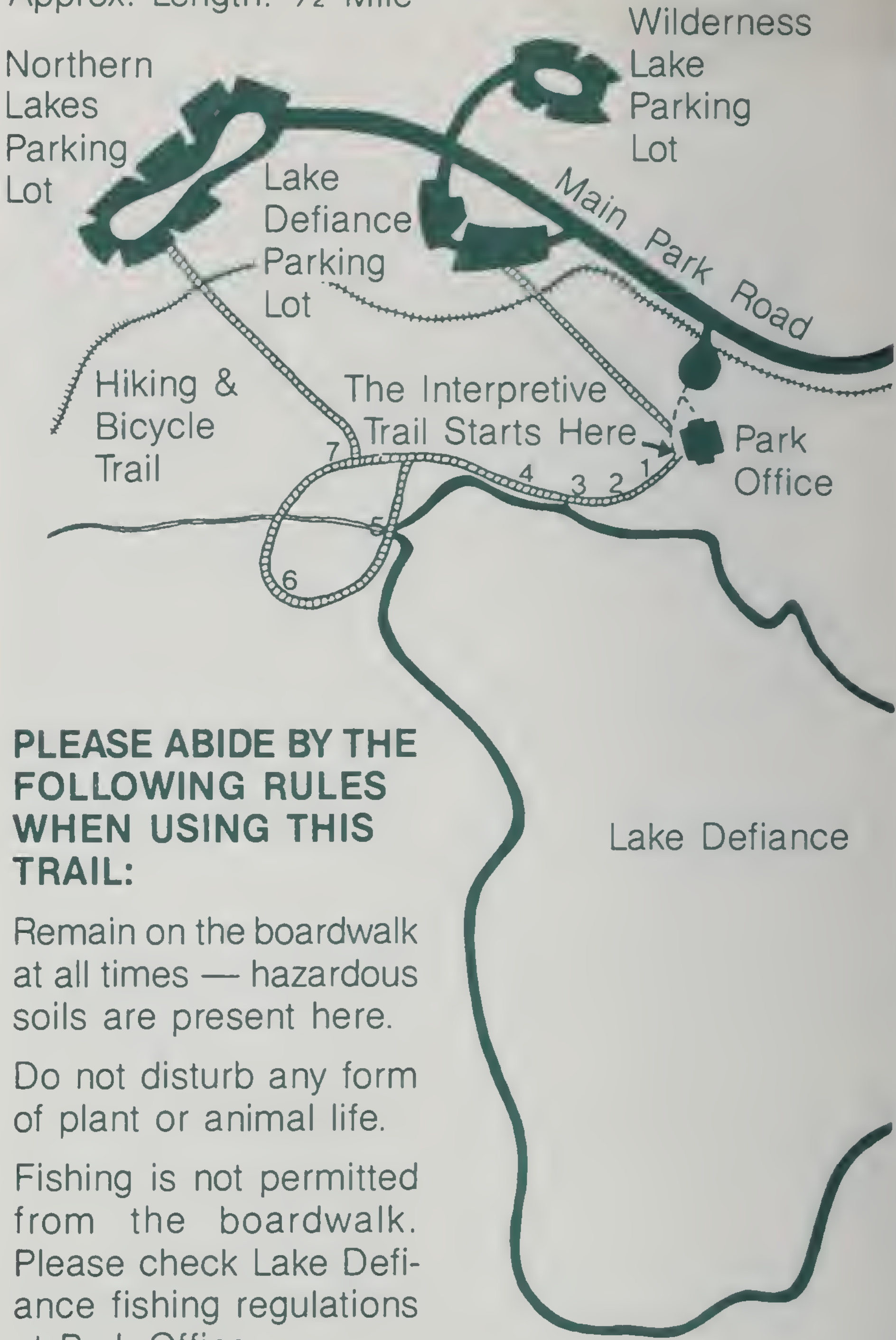
LAKE DEFIANCE SELF-GUIDED INTERPRETIVE TRAIL

Approx. Length: ½ Mile


Northern Lakes Parking Lot
Wilderness Lake Parking Lot
Lake Defiance Parking Lot
Main Park Road
Hiking & Bicycle Trail
The Interpretive Trail Starts Here
Park Office
1
2
3
4
5
6
7
Lake Defiance

PLEASE ABIDE BY THE FOLLOWING RULES WHEN USING THIS TRAIL:

Remain on the boardwalk at all times — hazardous soils are present here.

Do not disturb any form of plant or animal life.

Fishing is not permitted from the boardwalk. Please check Lake Defiance fishing regulations at Park Office.

Swimming is not allowed!

Pets must be leashed and under control at all times.

Bicycles and motorized vehicles are prohibited.

NUMBERED POSTS ALONG THE TRAIL CORRESPOND TO THE NUMBERED SECTIONS IN THIS TRAIL GUIDE!

INTRODUCTION

Lake Defiance was formed by the Wisconsin glacier, which covered northeastern Illinois approximately 15,000 years ago. As the glacier began to recede, it melted in a northeastward direction and left behind large deposits of a sand-gravel-rock-clay mixture known as glacial till. The rolling hills or "moraines" that are found throughout the park are composed of this material. Scattered within the glacial till were many large blocks of ice which melted as the climate continued its warming trend.

Depressions left by the blocks of ice quickly collected and stored the meltwater from the glacier.

Marshes and bogs generally formed in the poorly drained, shallow depressions, whereas lakes formed in the deeper basins which had good drainage and a sustaining water supply (i.e. a stream, spring, river, etc.). Lake Defiance is a deep glacial lake called a "kettle hole" lake. It has a maximum depth of 16 feet and covers an area of 47.8 acres. Water enters Lake Defiance from Pike Marsh to the south and from other wetlands to the east.

Moraine Hills State Park is situated within the largest morainic system in northeastern Illinois — The Valporaiso Moraine. Its characteristic rolling hills, lakes, and marsh areas cover a 10 mile wide expanse which extends to the southwestern edge of Lake Michigan.

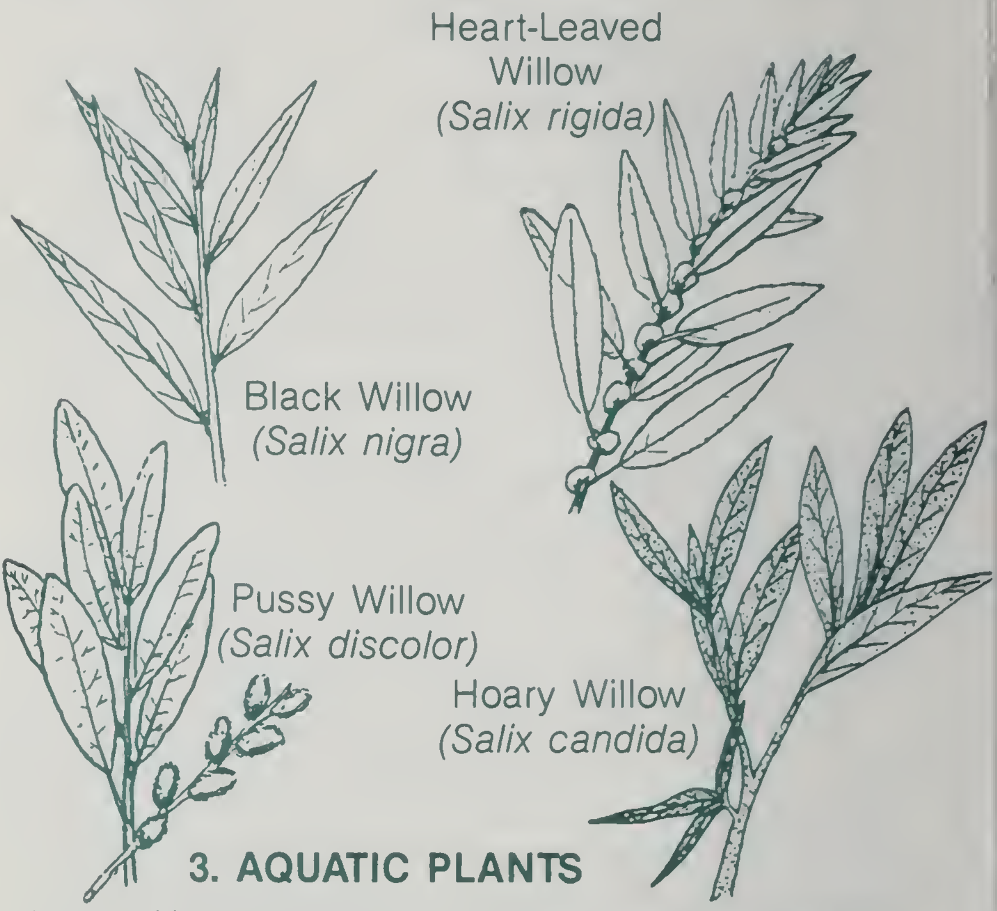
1. SUCCESSION: PLANT COMMUNITIES CHANGE

At one time the vegetation surrounding Lake Defiance was much different than we see it today. The sedge meadow, a common lakeside plant community, would probably have been found here. The dominant plant would have been the sedge — a grass-like plant with a triangular shaped stem. Sedges belong to one of the largest plant families on earth and it is likely that many species were present.

Human settlement determined the fate of many wetland areas. Hybrid seed was developed and new agricultural methods were discovered, allowing man to utilize new areas for crop production. The soil found in these wetland areas is quite rich because it is made up of partially decomposed plant material called peat. In the sedge meadows, the seed of reed canary grass was introduced and eventually replaced the dominant sedges. Reed canary grass is cultivated in some regions of the country for use as livestock feed. Here in the Lake Defiance area it offers habitat for many forms of wildlife, including the red-winged blackbirds pictured above.

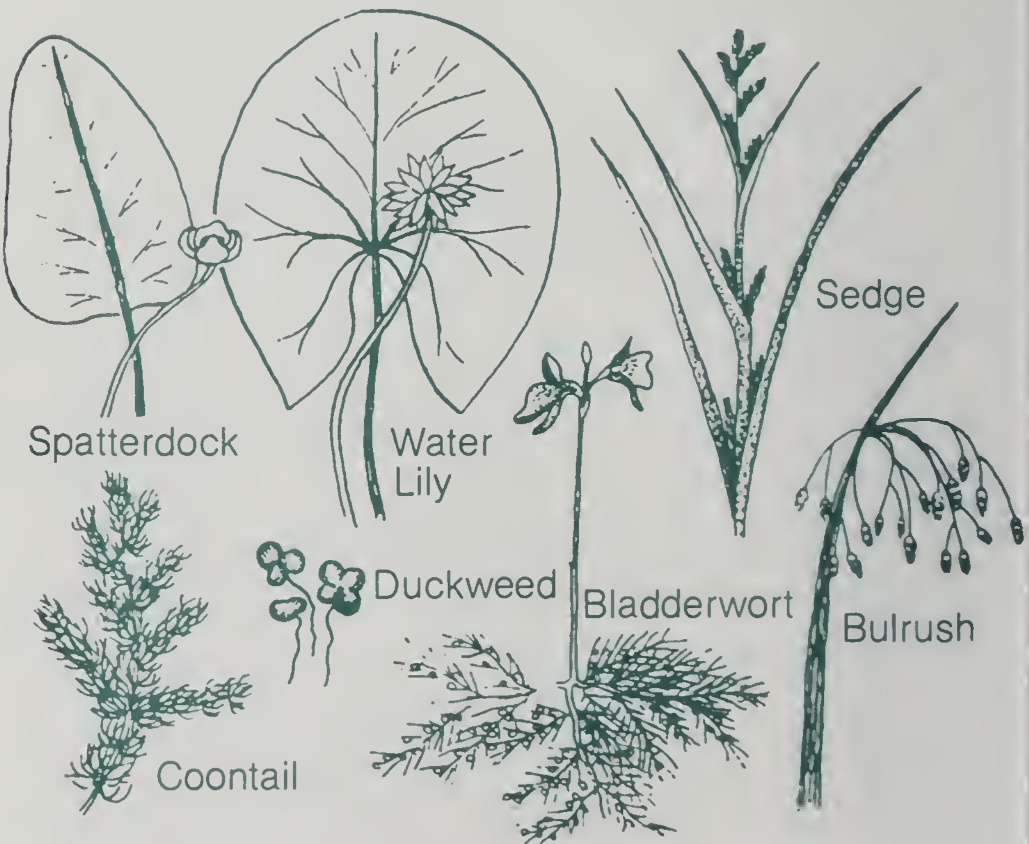
2. WILLOW

As you continue along the trail you can observe many different species of willow. The four main species found around Lake Defiance are: hoary willow, pussy willow, black willow, and heart-leaved willow. Willows are extremely difficult to identify because they cross-breed "freely" with one another, producing different varieties each year. As you continue along the trail try to identify the four main species which we have mentioned using the drawings below.



3. AQUATIC PLANTS

Water lilies, spatterdock, and duckweed are some of the common plants found floating on the surface of Lake Defiance. If you look below the surface of the water you are apt to see coontail and other aquatic vegetation clinging tightly to the soil at the bottom of the lake.

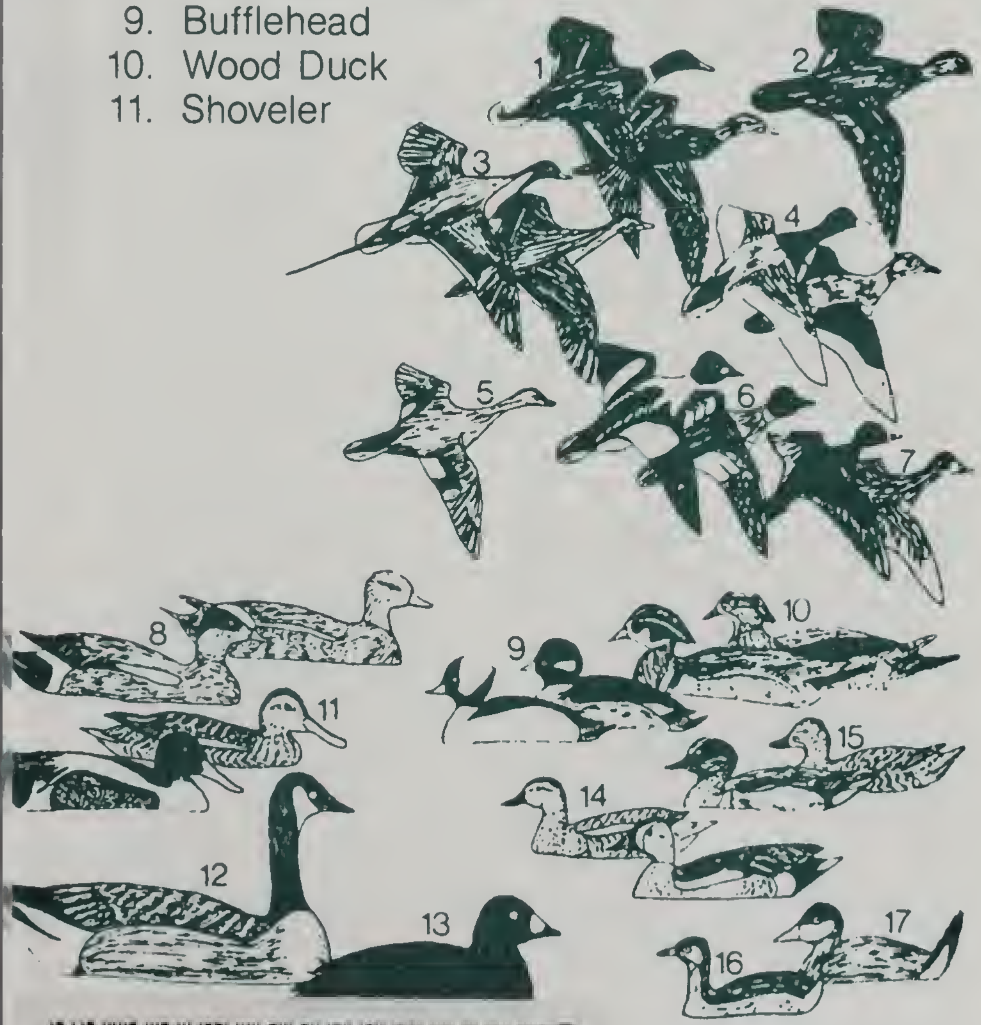


Dotting the shoreline are cattails, sedges, and bulrushes. During the summer, the yellow flowers of the insect-eating bladderwort can be seen. It is one of three carnivorous plants found in northeastern Illinois. The scientific name of the bladderwort is *Utricularia,* which is derived from the Latin "*utriculus*," meaning small sac or bag. Along the "submerged" stems of the bladderwort are small sacks or bladders with openings lined with very tiny hairs. As small insects brush up against these hairs, the bladders suddenly close, trapping and digesting the prey.

4. OBSERVATION BLIND

If you wait patiently and quietly, this observation blind may provide you with an excellent opportunity to view some of the birdlife found in a wetland area. Depending on the time of year, you may be able to observe various species of waterfowl and shorebirds that pass through the area during their seasonal migratory flights. Consult the drawings on this page and the following one to help you identify some of the bird species.

1. Mallard
2. Black Duck
3. Pintail
4. Redhead
5. Gadwall
6. Common Goldeneye
7. Ring-necked Duck
8. American Widgeon
9. Bufflehead
10. Wood Duck
11. Shoveler
12. Canada Goose
13. American Coot
14. Blue-winged Teal
15. Green-winged Teal
16. Pied-billed Grebe
17. Ruddy Duck



Drawings by Alexia Trzyna

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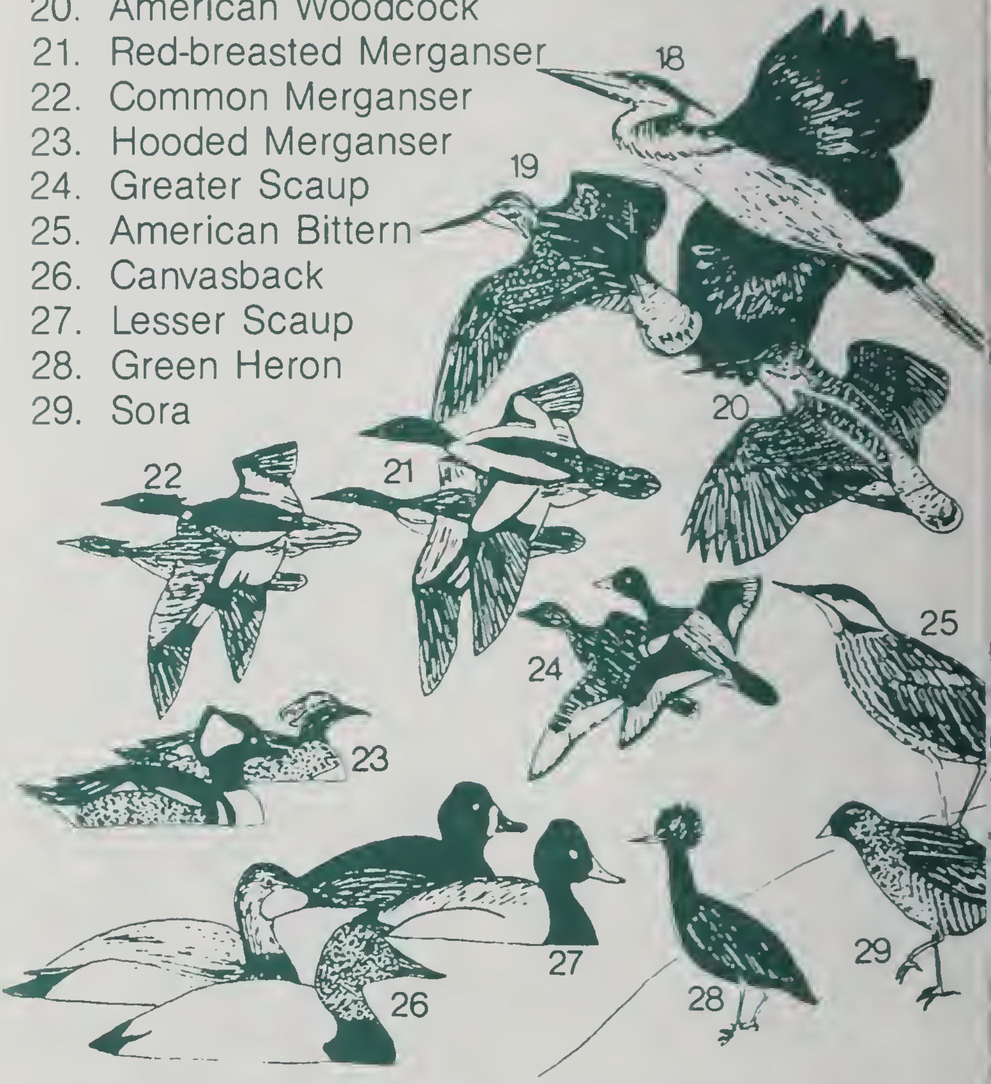
OBSERVATION BLIND (cont.)

Wetland birdlife classifications:

Waterfowl —
Surface Feeding Ducks: Numbers 1, 2, 3, 5, 8, 10, 11, 14 & 15
Diving Ducks: Numbers 4, 6, 7, 9, 24, 26 & 27
Other: Numbers 12, 13, 16, 17, 21, 22 & 23

Shorebirds —
Numbers 18, 19, 20, 25, 28 & 29

18. Great Blue Herron
19. Common Snipe
20. American Woodcock
21. Red-breasted Merganser
22. Common Merganser
23. Hooded Merganser
24. Greater Scaup
25. American Bittern
26. Canvasback
27. Lesser Scaup
28. Green Heron
29. Sora

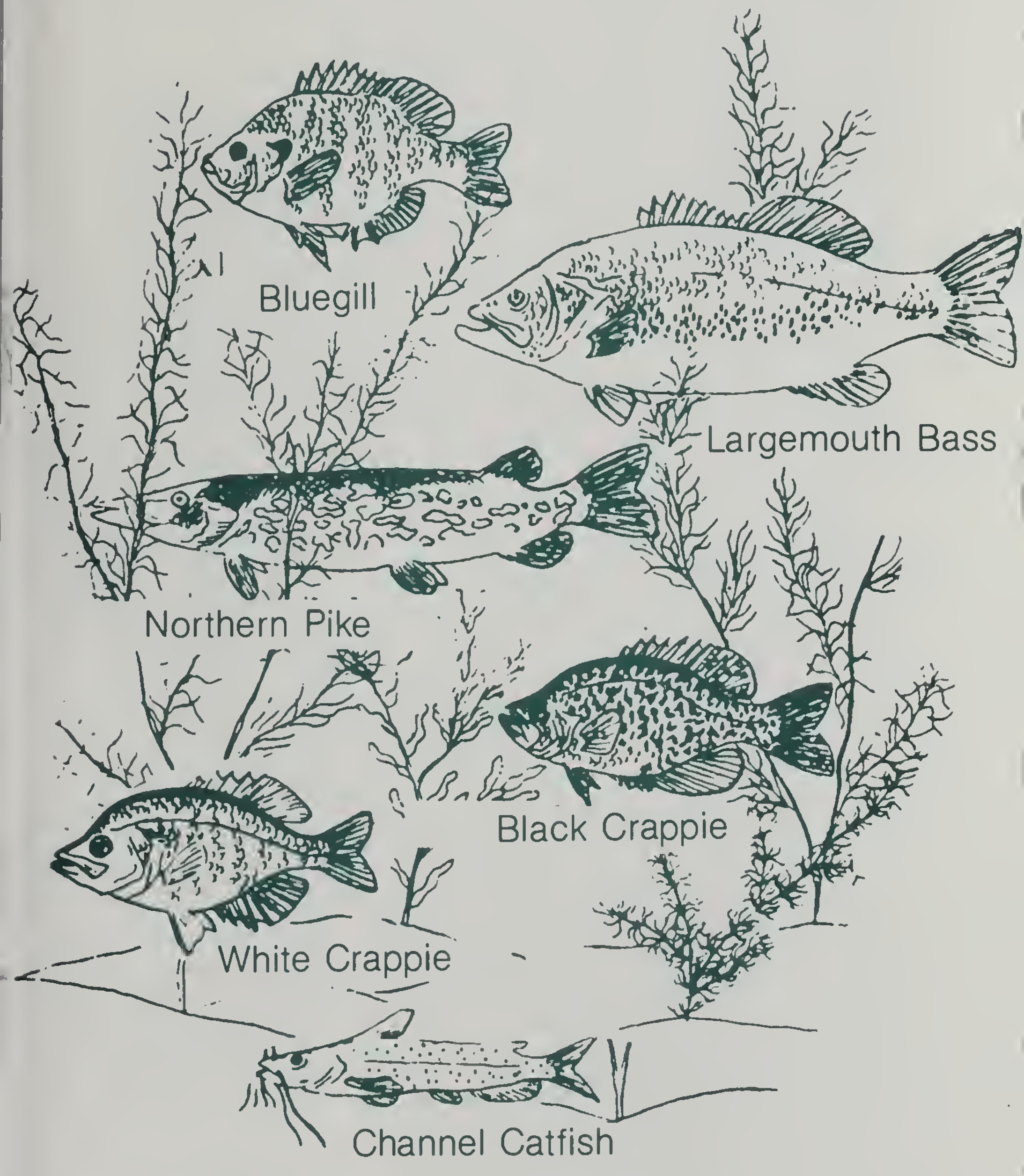


. . . PLEASE TURN TO THE LEFT TO CONTINUE ON THE INTERPRETIVE TRAIL . . .

5. LAKE DEFIANCE DRAINAGE

This drainage ditch connects Lake Defiance to the Fox River and allows excess water to flow between the two areas. During the spring thaw, flood water from the Fox River backs up into Lake Defiance and at one time allowed fish to migrate back and forth between the two bodies of water. Many undesirable fish (mainly carp) found their way to the lake and began to replace the game fish population. To combat this problem, fish barriers were placed in the ditch (not visible at this location). The migration of fish back and forth has been stopped and Lake Defiance now supports a very healthy and self-sustaining fish population.

At least 26 species are found in the lake, including largemouth bass, northern pike, crappie, bluegill, and channel catfish. When water levels have risen in the spring, the northern pike swim southward to Pike Marsh which serves as a natural spawning ground.



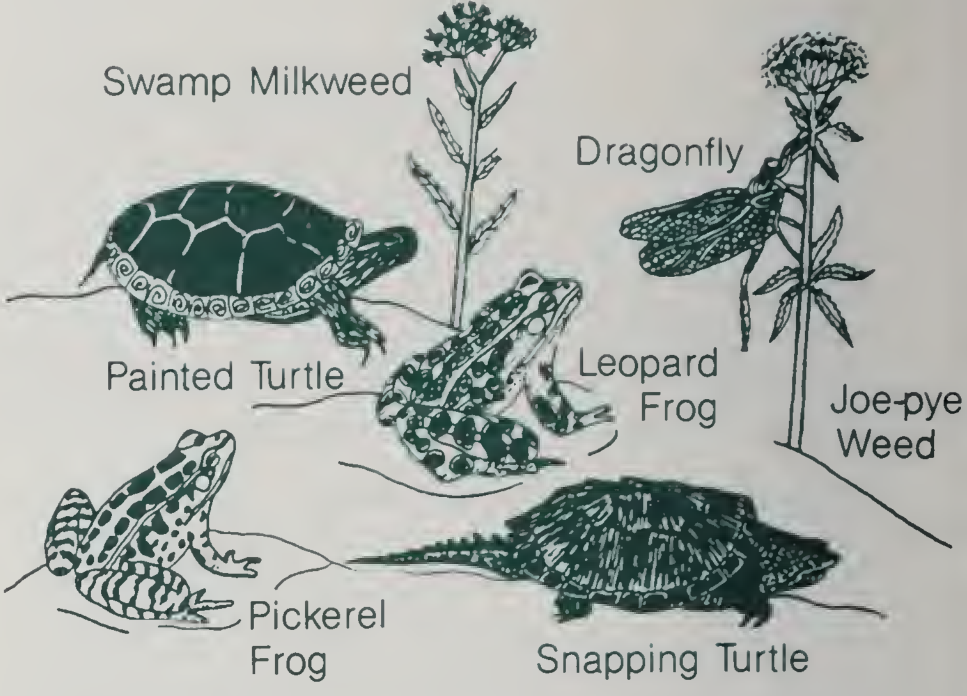
6. WETLANDS — WORTH SAVING

Because of their life supporting water supply, wetlands are critical to the survival of all life forms — including humans.

Without wetlands, like this area surrounding Lake Defiance, rainfall and runoff would flood adjacent land which can not tolerate the excess water flow. Wetlands collect, store, and purify our rainwater.

The dominant plants found in this area include reed canary grass, milkweed, smartweed, and Joe-pye weed.

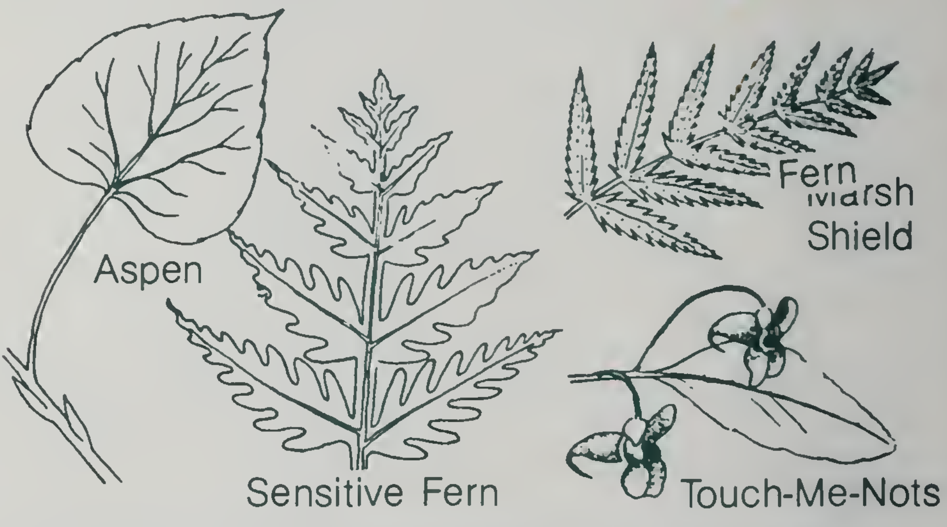
Wetlands provide the necessities of life for numerous forms of wildlife, including those pictured above. Other animals which either inhabit or frequent the wetlands include: various snakes, muskrat, white-tailed deer, meadow vole, opossum, and



raccoon. Predators such as mink, red-tailed hawk, great horned owl, red fox, and long-tailed weasel visit the wetlands often in search of prey.

7. TREMBLING TREES

The stand of quaking aspen trees found at this location are common to the wetlands of northeastern Illinois. The leaves of this tree are attached to long, flat stems which are very flexible. Even in the slightest of breezes, the leaves appear to "tremble" or "quake" as they are tossed about. Quaking aspen is a relatively small tree, rarely reaching a height of more than 65 feet. You may be able to spot plants such as stinging nettle, sensitive fern, marsh shield fern, jewelweed, and touch-me-nots growing in the shade of the aspens.



We hope that you have enjoyed your visit to Lake Defiance and its wetland community. Moraine Hills State Park offers a variety of trail systems which allow for a further awareness of the many different environments existing here. It is up to all of us to preserve our natural areas so that future generations will be able to enjoy the area as we did today.

. . . TO RETURN TO THE NORTHERN LAKES PARKING LOT, PLEASE TURN LEFT. TO RETURN TO THE PARK OFFICE, PLEASE CONTINUE STRAIGHT AHEAD . . .

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